

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PC03003-LG</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR03/00683</b>	International filing date ( <i>day/month/year</i> ) 04 APRIL 2003 (04.04.2003)	(Earliest) Priority Date ( <i>day/month/year</i> ) 08 APRIL 2002 (08.04.2002)
Applicant <b>LG LIFE SCIENCES LTD. et al</b>		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2.  Certain claims were found unsearchable (See Box I).

3.  Unity of invention is lacking (See Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawing to be published with the abstract is Figure No. none

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR03/00683

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C07D 471/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C07D 471/04, A61K 31/47, C07D 207/22

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
stn on line, pubmed on line

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5869670 A (LG Chemicla Ltd.) 9 Feb. 1999 see the whole document	1
A	WO 98/42705 A1 (LG Chemicla Ltd.) 01 Oct. 1998 see the whole document	1
A	WO 2001/018002 A1 (Sb Pharmco Puerto Rico Inc. et al.) 15 Mar. 2001 see pages 1-2	1
A	WO 99/44991 A1 (LG Chemicla Ltd.) 10 Sep. 1999 see pages 10-14	1
A	Graul, A et al. 'Fluoronaphthyridinecarboxylic acid antibacterial'; In Drugs of the Future (1998), 23(11), 1199-1204	1

 Further documents are listed in the continuation of Box C. See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents.such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

22 AUGUST 2003 (22.08.2003)

Date of mailing of the international search report

25 AUGUST 2003 (25.08.2003)

Name and mailing address of the ISA/KR

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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

PCT/KR03/00683

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 2001/018002 A1	15/03/2001	BR 2000013751	A	07/05/2002
		EP 1214321	A1	19/06/2002
		JP 2003/508532	T2	04/03/2003
		GB 1999/20917	A	03/09/1999
WO 99/44991 A1	10/09/1999	ZA 9901663	A	06/09/1999
		TW 453993	B	11/09/2001
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		NO 2000004288	A	25/10/2000
		US 6307059	B1	23/10/2001
US 5869670 A	09/02/1999	KR 131999	B1	17/04/1998
		CN 1114959	A	17/01/1996
		CN 1058010	B	01/11/2000
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		US 5776944	A	07/07/1998
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		AU 9866366	A1	20/10/1998
		AU 726634	B2	16/11/2000
		EP 981527	A1	01/03/2000
		EP 981527	B1	07/05/2003
		NZ 337748	A	30/03/2001
		CZ 288673	B6	15/08/2001
		EP 1179533	A2	13/02/2002